REMARKS

Claims 52-90 are currently pending in the above-identified application. Claims 52-69 and 74-90 have been rejected, and claims 70-73 have been objected to. Applicants have amended the Abstract and the specification to address issues raised by the outstanding Office action. Applicants have further amended claims 60, 79 and 81 for the sole purpose of furthering the prosecution of the present application. Applicants respectfully request reconsideration based upon the foregoing amendments and following remarks.

The Office action indicates that reference to priority applications has not been properly made. Applicants have amended paragraph **[0001]**, which includes the priority data.

The Abstract stands objected to as not being directed to the claimed invention. Applicants have replaced the Abstract.

Figures 1 and 2 stand objected to as failing to provide a legend "Prior Art". Applicants are filing concurrently herewith a Request for Drawings Change. The Request is for the inclusion of the legend "Prior Art" to Figures 1 and 2.

Claims 60 and 79-82 stand rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

Claim 60 is specifically rejected under §112, second paragraph for reciting a limitation, namely "said flexible support sleeve", which lacks proper antecedent basis. Claim 60

has been amended to include "a flexible support sleeve" as a feature, thus providing proper antecedent basis for the subsequent recital of "said flexible support sleeve" in claim 60.

Claims 79 and 81 recite a limitation "said module housing" which lacks proper antecedent basis. Claims 79 and 81 have been amended to omit "module". Claims 80 and 82 depend from, respectively, claims 79 and 81.

Claims 52-69, 74-80 and 83-90 stand rejected under 35 U.S.C. § 103 as being unpatentable over Frederick et al. Applicants respectfully traverse this rejection.

Claim 52 recites a gamma detector that includes "a radiation sensing element, wherein said radiation sensing element transforms radiation into light", "a light receiving element, wherein said light receiving element transforms light into electrical impulses", "a housing encasing said radiation sensing element and said light receiving element", and "at least one window in said housing for allowing radiation into the detector, wherein said window is formed of a material comprising polyether ether ketone" (emphasis added). Claims 53-69, 74-80 and 83-90 depend from claim 52.

Frederick et al. describes a gamma radiation detector that includes a radiation sensing element, a light receiving element, and a housing. Importantly, the only window Frederick et al. discloses is an optical window 54 which is placed between the light receiving element and the radiation sensing element. The optical window 54 is not a window capable of allowing radiation into the gamma detector. Instead, the optical window 54 serves as an optical

coupling between the radiation sensing element and the light receiving element, allowing light scintillations to be transmitted into the light receiving element.

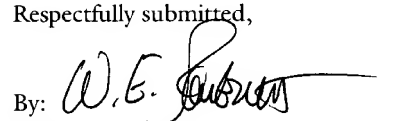
The Office action states that Frederick et al. discloses a window-like end retainer 24 which serves to allow radiation into the detector assembly. Applicants respectfully submit that such a contention is erroneous, and any characterization of the end retainer 24 as being "window-like" is mere conjecture. There is no disclosure in Frederick et al. to suggest that the end retainer 24 allows radiation into the detector. On the contrary, the disclosure of Frederick et al. suggests that the housing, which is formed from a lower attenuation material (such as titanium) requires no such window (Column 6, line 65 – Column 7, line 17). Thus, Frederick et al. fails to teach or suggest "at least one window in said housing for allowing radiation into the detector" and certainly fails to teach or suggest "wherein said window is formed of a material comprising polyether ether ketone" as recited in the claims.

Claims 70-73 stand objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form. Claims 81 and 82 also have been held allowable if the §112, second paragraph rejection is overcome. Applicants submit, based at least upon the above arguments, that all of the pending claims, including claims 70-73, 81 and

82 are allowable. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Dated: September 18, 2002

Respectfully submitted,

By: 

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

The Abstract and paragraph **[0001]** have been replaced and claims 60, 79 and 81 have been rewritten.

ABSTRACT

A gamma detector having a radiation sensing unit, a light receiving element, a housing, at least one window in the housing formed of polyether ether ketone, a shield, and a flexible support sleeve partially surrounding the radiation sensing unit within the shield. The flexible support sleeve provides dynamic support for the radiation sensing unit. In one aspect, the gamma detector includes a pair of flexible support sleeves, one within the shield and the other surrounding the shield.

Paragraph [0001] has been replaced:

This [application claims priority from] is a continuation-in-part of U.S. patent application serial no. 09/471,122, filed December 23, 1999, and a continuation-in-part of U.S. patent application serial no. 09/626,744, filed July 26, 2000, and also claims priority from U.S. provisional patent application serial no. 60/238,127, filed October 6, 2000, all of which are incorporated by reference herein in their [entirities] entireties.

Claims 60, 79 and 81 have been rewritten:

60. (Amended) The gamma detector of claim 59, further comprising a flexible support sleeve and a lubricant between said polyimide tape and said flexible support sleeve.

79. (Amended) The gamma detector of claim 78, wherein said light receiving element comprises a photomultiplier tube, further comprising:

a window positioned between said photomultiplier tube and said scintillation element; and

a second flexible support sleeve surrounding said photomultiplier tube within said [module] housing, said second flexible support sleeve providing dynamic support for said photomultiplier tube.

81. (Amended) The gamma detector of claim 79, further comprising:

an explosion-proof housing surrounding said module housing; and

a third flexible support sleeve surrounding said [module] housing within said explosion-proof housing, said third flexible support sleeve providing dynamic support for said photomultiplier tube.